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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,160	04/01/2004	Frank P. Uckert	PE0669USDIV	9047

23906 7590 06/15/2006

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EXAMINER

CHOI, LING SIU

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/816,160

Applicant(s)

UCKERT ET AL.

Examiner

Ling-Siu Choi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2004 and 01 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-11 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-11 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>4/1/04, 10/6/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Application is a Division of US Application Serial Number 10/139,002, filed May 3, 2002, which claims benefit of 60/289,333 filed May 7, 2001.
2. Claims 1, 12-13, and 15-20 were canceled and Claims 2-11 and 14 are now pending.

Claim Objections

3. Claims 2-11 and 14 are objected to because of the following informalities:
 - (a) Claim 2, line 27; Claim 6, line 11, "Formula XII shown in Figure 12" is suggested to be changed to incorporate the formulas in the claim because claims are to be complete in themselves where possible. Incorporation by reference to a specific figure "is permitted only in exceptional circumstances where there is no practical way to define the invention in words and wherein it is more concise to incorporate by reference than duplicating a drawing or table into the claim. Incorporation by reference is a necessity doctrine, not for applicant's convenience." *Ex parte Fressola*, 27 USPQ 2d 1608, 1609 (Bd. Pat. App. & Inter. 1993);
 - (b) Claim 2, line 27, "or" is suggested to be changed to --and optionally,--;
 - (c) Claim 2, line 57, "or" is suggested to be changed to --and optionally,--;
 - (d) Claim 7, line 9, "alkoxy groups" is suggested to be changed to --OR¹ groups--;

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(e) Claim 7, line 10, "esters" is suggested to be changed to --CO₂R¹ groups--;and

(f) Claims 9-11, line 3, "H" is suggested to be changed to --hydrogen--;

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 2-11 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2, lines 67-69, the recitation "in Formula XII:from 1to 12" causes indefiniteness because the Formula XII is not defined in the claim;

Claim 7, lines 4-5, the recitation "partially or fully fluorinated alkyl groups having from 1 to 12 carbon atoms, especially CF₃" causes indefiniteness because a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render

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a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 7 recites the broad recitation "partially or fully fluorinated alkyl groups having from 1 to 12 carbon atoms", and the claim also recites "CF₃" which is the narrower statement of the range/limitation.

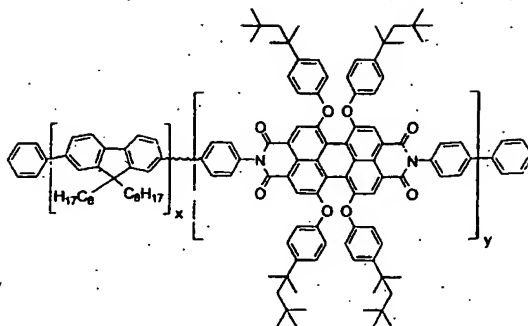
Allowable Subject Matter

6. Claims 2-11 and 14 are allowable over the closest references: Becker et al. (WO 01/42331 A1).

A polymer comprising	A. at least a first monomeric unit selected from Formula I
	B. at least one second monomeric unit selected from Formulae II - XI
	with the proviso that the polymer contains at least one R substituent having the formula of -C _ψ F _{2ψ+1}

Becker et al. disclose poly [2,7-(9,9-di-n-octylfluorene)]-co-[4,4'-(N,N'-diphenyl)-[1,6,7,12-tetra [4-(1,1,3,3-tetramethylbutyl)phenoxyperylene]-3,4:9,10-tetracarboxdiimide]:

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(Example 3). However, Becker et al. do not teach or fairly suggest the polymer having at least one substituent of $-C_{\psi}F_{2\psi+1}$.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on 571-272-1114.

LING-SUI CHOI
PRIMARY EXAMINER

June 5, 2006